

REMARKS

The Office Action mailed February 19, 2008, has been carefully considered. In response thereto, the present application has been amended in a manner that is believed to place it into condition for allowance. Accordingly, reconsideration and withdrawal of the outstanding Office Action and issuance of a Notice of Allowance are respectfully solicited in view of the foregoing amendments and the following remarks.

At the outset, applicant acknowledges with appreciation the indication of allowable subject matter in claims 3-9, 12, 13, 15, 16, 19 and 20.

Applicant respectfully submits that the present Amendment overcomes the objection to the abstract and the disclosure.

Applicant respectfully traverses the rejection of claims 1, 2, 10, 11, 14, 17 and 18 under 35 U.S.C. § 103(a) over *Petrovich et al* in view of *Adkins et al*. Applicant respectfully submits that *Adkins et al* is not in fact prior art against the present application in view of the earliest claimed priority date of April 17, 2003, which is before the filing date of May 12, 2003 for *Adkins et al*.

Moreover, even if *Adkins et al* is assumed to be prior art, applicant respectfully submits that the present claimed invention would not have been obvious over the proposed combination of references.

Neither of the applied references teaches the use of a piezoelectric crystal for oscillating the surface. Accordingly, the combination of the two references would not have rendered the present claimed invention obvious to a person having ordinary skill in the art, absent impermissible hindsight reconstruction of the invention. The only teaching to make the required modification comes from the present invention itself.

Furthermore, as a matter of law, it is necessary to consider all teachings of a reference, including those that teach away from the invention. *W. L. Gore & Associates, Inc., v. Garlock, Inc.*, 721 F.2d 1540, 1550, 220 U.S.P.Q. 303, 311 (Fed. Cir. 1983). For the reasons set

forth below, applicant respectfully submits that the applied references include teachings that teach away from combining them in the manner suggested in the Office Action.

*Adkins et al* teaches a type of resonator called a “teeter-totter” resonator, which cannot operate with the sensor readout circuit of *Petrovich et al* without carrying out significant extra work in modifying the apparatus of *Petrovich et al*, which would require a level of inventive activity beyond what would have been obvious to a person having ordinary skill in the art.

*Adkins et al* makes it clear (see column 3, lines 48-50) that the operation of the teeter-totter resonator relies on the Lorentz force to excite torsional oscillation in a paddle. The Lorentz force is generated by an alternating electric current flowing in the resonator interacting with an external magnetic field (see column 2, lines 3-5). The sensor readout circuit of *Petrovich et al* does not provide an external magnetic field suitable for this purpose and therefore cannot generate the Lorentz force required for the resonator to operate.

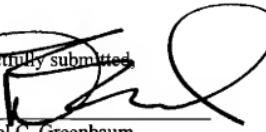
Accordingly, applicant respectfully submits that under *Gore, supra*, the present claimed invention would not have been obvious to a person having ordinary skill in the art over the applied references because the applied references teach away from combining them as proposed in the Office Action.

In view of the above amendment and remarks, applicant believes the pending application is in condition for allowance. Notice of such allowance is respectfully solicited.

Please charge any deficiency in fees, or credit any overpayment thereof, to our Deposit Account No. 23-2185, under Order No. 124262.0101, from which the undersigned is authorized to draw. If a separate Petition for Extension of Time is either missing or insufficient to render the present Amendment timely, applicant respectfully petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render the present Amendment timely. Any fee due is authorized above.

Dated: June 19, 2008

Respectfully submitted,

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*by David Edmonson  
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